



Self-Study Module

The Power of the Grape: Research on Concord grapes, grape polyphenols, and heart health, plus emerging areas of study

Answer Key:

1. The skin of the Concord grape has a high concentration of:
 - a. **anthocyanins.**
 - b. flavanols.
 - c. phenolic acids
 - d. stilbenes.

2. On average, the antioxidant potential of a serving of Concord grape juice is about the same as a serving of:
 - a. apple juice.
 - b. white grape juice.
 - c. **red wine.**
 - d. tea.

3. Studies have demonstrated that Concord grape juice can positively impact:
 - a. triglyceride levels.
 - b. LDL cholesterol levels.
 - c. **the rate of LDL oxidation.**
 - d. the LDL/HDL ratio.

4. Research suggests that Concord grapes may deliver the following cardiovascular benefits *except*:
 - a. supporting healthy blood flow.
 - b. having an anti-clotting effect.
 - c. maintaining healthy blood pressure in certain populations.
 - d. **sustaining a normal heart rhythm.**

5. The polyphenols in grape juice have been shown to stimulate the production of ____ which can promote arterial relaxation.
 - a. **nitric oxide**
 - b. nitric acid
 - c. carbon dioxide
 - d. lactic acid

6. Research suggests that the anti-platelet effect associated with drinking Concord grape juice are attributed to the presence of:
- a. **proanthocyanidins and other flavonoids.**
 - b. tocopherols and tocotrienols.
 - c. oxalic acid and phytic acid.
 - d. xanthophylls and other carotenoids.
7. One study of the effect of Concord grape juice on arteries found that those who drank grape juice for two weeks had improved flow-mediated dilation of the _____ artery.
- a. fibular
 - b. popliteal
 - c. **brachial**
 - d. right coronary
8. Based on one study on men and women with prehypertension or stage 1 hypertension, results suggest that the consumption of Concord grape juice may help lower ____ blood pressure.
- a. diastolic
 - b. **nocturnal**
 - c. systolic
 - d. ambulatory
9. Emerging research suggests that Concord grapes may benefit those with:
- a. rheumatoid arthritis.
 - b. osteoporosis.
 - c. **age-related cognitive decline.**
 - d. heart failure.
10. A study on the consumption of Concord grape juice and human immunity found that subjects who consumed 100% grape juice made with Concord grapes and with added vitamin C had greater numbers of:
- a. **gamma delta T-cells.**
 - b. alpha beta T-cells.
 - c. basophils.
 - d. monocytes.
11. A healthy mix of polyphenols can be obtained by consuming a diet rich in:
- a. monounsaturated oils.
 - b. nuts and seeds.
 - c. **colorful fruits and vegetables.**
 - d. fat-free or low-fat dairy foods.

12. Blue and purple fruits and vegetables account for about ____ percent of total produce intake.
- a. **three**
 - b. seven
 - c. ten
 - d. twelve
13. The most popular blue/purple fruits and vegetables are:
- a. **grapes, 100% grape juice, and raisins.**
 - b. grapes, blackberries, and blueberries.
 - c. raisins, 100% grape juice, and purple cabbage.
 - d. raisins, eggplant, and blueberries.
14. A ____ glass of 100% grape juice made with Concord grapes counts as one serving of fruit.
- a. 2-oz.
 - b. **4-oz.**
 - c. 6-oz.
 - d. 8-oz.